POLUEKTOV, Viktor Grigor'yevich; SUTYRIN, M.A., retsenzent; BUROV, N.I., retsenzent; ALEKSEYEV, V.I., red.izd-va; RIDNAYA, I.V., tekhn. red.

[Handling of ships with underwater wings]Upravlenie sudami na podvodnykh kryl'iakh. Redaktor E.I.Chestnov. Moskva, Izd-vo "Rechnoi transport," 1962. 56 p. (MIRA 16:3)
(Hydrofoil boats--Handling)

41833

S/262/62/000/004/005/024
I014/I252

AUTHORS: Levental' L. YA. and Polyéktov, V. K.

TITLE: Investigation of the degree of reactivity of a turbine stage of low rated reactivity under speed variation.

PERIODICAL: Referativnyy zhurnal, Silovyye ustanovki, no. 4, 1962, 32, abstract 42.4.181. "Tr. Vses n.-i. in-ta zh-d. transp." 1961, no. 214, 29–36

TEXT. An investigation is reported of the character of variation of the degree of reactivity ρ of a turbine stage at different speeds. A stage with small rated ρ was investigated with a view to obtaining sufficiently high negative ρ values. With decrease of speed the inlet angle of the stream to the working blades decreases, with resulting reduction in the effective area of the rotor inlet. This can lead to transformation of the converging flow in the channels between the rotor blades into a diverging one. In the case of diverging flow the pressure in the axial clearance between nozzles and wheel is lower than that behind the wheel, i.e. ρ becomes negative. The experiments yielded $\rho = f(u/c_0)$ curves for two levels of pressure drop, of the same character as the relationships obtained for stages with higher initial ρ. An increase in the inlet angles leads to a decrease in ρ, down to considerable negative values. The curves reflect the general character of the qualitative variation of $\rho = f(u/c_0)$. The data on ρ for $u/c_0 = 0$ can be used in determining the coefficients of the maximum torque equation for an active turbine stage. There are 4 figures and 2 references.

[Abstracter's note: Complete translation.]

Card 1/1

LEVENTAL', L.Ya., inzh.; POLUEKTOV, V.K., inzh.

Investigating the reactance degree of the turbine stage with a low nominal reactance during speed changes. Trudy TSNII MPS no.214:29-37 '61. (MIRA 14:8)

(Gas-turbine locomotives)

POLUEKTOV, V.M.; POSAZHENNIKOVA, N.A.

Results of industrial tests of a system of short working faces with loading by blasting under conditions of the Artem deposit. Gor. i ekon. vop. razrab. ugol'. i rud. mest. no.1:75-82 '62. (MIRA 16:7)
(Artem region--Blasting) (Conveying machinery)

SIDOROV, I.P.;BABOKIN, I.A.;IVANOV, K.I.;MEL'NIKOV, S.S.;POLUEKTOV, V.M.

Results of industrial tests of auger underground coal mining system. Ugol' 34 no.11:13-18 N '59 (MIRA 13:3)

1. Glavnyy inzhener shakhty No.7 tresta Novovolyaskugol' (for Sidorov). 2. Institut gornogo dela AN SSSR (for all except Sidorov).
(Lvov-Volyn' Basin--Coal mines and mining)
(Boring machinery--Testing)

BARANOVSKIY, V.I., inzh.; POLYEKTOV, V.M., inzh.

Preventing coal and gas outbursts in mines of the Donets Basin. Bezop.truda v prom. 4 no.8:4-5 Ag '60.
(MIRA 13:8)
(Donets Basin--Coal mines and mining--Safety measures)

SIDOROV, I.P.; POLUEKTOV, V.M.

Workers' of mine no.7 of "Novovolynskugol' Trust" are mastering new mining methods. Ugol' 34 no.10:62 O '59. (MIRA 13:2)

1.Glavnyy inzhener shakhty No.7 tresta Novovolynskugol' (for Sidorov).
2.Institut gornogo dela an ssar (for Poluektov).
(Lvov-Volyn Basin--Coal mines and mining)

POLYAKOV, V. (Sverdlovsk); BARANOV, A. (Ivanovo); TSYBUL'KO, A. (Arkhangel'sk); NECHAYEV, V. (Arkhangel'sk); KANE, A., konstruktor; BIZUNOV, N.; SHASHUNOV, I., starshiy nauchnyy sotrudnik; RUDENKO, F.; KONYAKHIN, N.; KUZ'MIN, V.; POLUYEKTOV, Ye.; MOSKALENKO, N.

Technical information. Okhr.truda i sots.strakh. 5 no.12:32-37 D '62. (MIRA 16:2)

1. Zavod "Russkiy dizel'", Leningrad (for Kane). 2. Tekhnicheskiy inspektor otdela okhrany truda TSentral'nogo komiteta profesional'nogo soyuza rabochikh i sluzhashchikh sel'skogo khozyaystva i zagotovok (for Bizunov). 3. Ventilyatsionnaya laboratoriya Vsesoyuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta (for Shashunov). 4. Tekhnicheskiy inspektor Moskovskogo oblastnogo soveta professional'nykh soyuzov (for Rudenko). 5. Komandir otdeleniya gazospasatel'nogo otryada Omskogo neftezavoda (for Konyakhin). 6 Tekhnicheskiy inspektor Stavropol'skogo krayevogo soveta professional'nykh soyuzov (for Moskalenko).

(Technological innovations)
(Safety appliances)

GOL'DENBERG, S.A., inzh.; POLUEKTOV, V.Yu., inzh.

Elevated cable ducts in a chemical plant. Prom. energ. 19 no. 4:35-37 Ap '64. (MIRA 17:5)

POLUEKTOV, Ye.B.; IVANNIKOV, G.S.

Advanced methods in the utilization of station equipment and facilities. Zhel.dor.transp. 44 no.5:69-75 My '62. (MIRA 15:5)

1. Zamestitel' nachal'nika sluzhby dvizheniya Moskovskoy dorogi (for Poluektor). 2. Nachal'nik stantsii Perovo Moskovskoy dorogi (for Ivannikov).
(Railroads--Management)

POLUEKTOV, Ye.V.

ZAGORSKIY, F.N.; ZAGORSKAYA, Ye.P.; KHARLAMOV, M.S., retsenzent; ROMANOV, V.A., inzhener, retsenzent; POLUEKTOV, Ye.V., inzhener, redaktor; TIKHONOV, A.Ya, tekhnicheskiy redaktor

[Safety engineering in rapid metal dutting] Tekhnika bezopasnosti pri skorostnom rezanii metallov. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroitel'noi lit-ry, 1954. 167 p. [Microfilm] (MLRA 8:4)
(Metal cutting--Safety measures)

POLUEKTOV, Ye. V.

SHAL'NEV, V.G.; BIBIKOV, A.V., inzhener, retsenzent; LOBACHEV, P.V., inzhener; POLUEKTOV, Ye.V., inzhener, redaktor; SAKSAGANSKIY, T.D. redaktor; POPOV, Ya.N., redaktor; POPOVA, S.M., tekhnicheskiy redaktor.

[Safety measures and improvement of working conditions for hot press working of metals in forging and pressing shops] Tekhnika bezopasnosti i ozdorovlenie uslovii truda pri goriachei obrabotke metallov davleniem v kuznechno-pressovykh tsekhakh. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1955. 214 p. (MLRA 8:11)

(Forging--Safety measures)

TSETLIN, Boris Viktorovich; POLUEKTOV, Yevgeniy Vyacheslavovich; ROZOVSKIY, R.S., inzh, retsenzent; KUGINIS, B.L., inzh, retsenzent; DUVANKOV, G.S., red.; BARYKOVA, G.I., red.izd-va; TIKHANOV, A.YA., tekhn.red.

[Safety measures in operating load-lifting machinery at machinery manufacturing plants] Tekhnika bezopasnosti pri ekspluatatsii gruzopod"emnykh mashin na mashinostroitel'nykh zavodakh. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1958. 145 p. (MIRA 12:1)

(Hoisting machinery) (Machinery industry--Safety measures)

POLUJEKTOV, Yu.A.

Difference between thrombophlebitis of the superficial cutaneous veins in the thoracoepigastric region and the intracutaneous metastasis of breast cancer. Vop. onk. 11 no.7:88-94 '65.
(MIRA 18:9)

1. Iz Dnepropetrovskogo oblastnogo onkologicheskogo dispansera (glavnyy vrach - V.N. Vasilenko) i Krivorozhskogo gorodskogo onkologicheskogo dispansera (glavnyy vrach - M.A. Zybina).

POLUEKTOV, Yu.A.; GUREVICH, M.A.

Single observation of a gastric eosinophilic granuloma. Khirurgiia no.3:125-128 '63. (MIRA 16:5)

1. Iz Krivorozhskogo gorodskogo onkologicheskogo dispansera (glavnyy vrach M.A.Zybina).
(STOMACH--TUMORS)

GALKIN, N.P.; MAYOROV, A.A.; SHUBIN, V.A.; POLUEKTOVA, G.B.; KRYLOV, A.S.

Composition of precipitates forming in the reaction of ammonia with aqueous solutions of uranyl sulfate or nitrate. Zhur.neorg.khim. 6 no.10:2319-2324 O '61. (MIRA 14:9)
(Uranyl sulfate) (Uranyl nitrate) (Ammonia)

VOLOSTNOVA, M.B.; DAL'KOVSKAYA, A.F.; DANILOVA, N.P.; KOPUSOVA, F.L.; LISITSKAYA, M.M.; LITVIN, I.P.; MIROPOL'SKIY, Ya.A.; NADZHAROVA, N.M.; SAVINA, V.I.; POLUEKTOVA, I.Ye.; GORYACHKIN, A.Z.

[Dictionary of the geographical names of foreign countries] Slovar' geograficheskikh nazvanii zarubezhnykh stran. Moskva, Nedra, 1965. 480 p.
(MIRA 18:7)

1. Moscow. TSentral'nyy nauchno-issledovatel'skiy institut geodezii, aeros"emki i kartografii.

POLUEKTOVA, L.S.

Pharmacology of marsh tea. Farm. i toks, 25 no.1:114-115 Ja-F '62.
(MIRA 15:4)

1. Kafedra farmakologii (zav. - doktor biologicheskikh nauk prof. N.I.Sharapov) Novosibirskogo gosudarstvennogo meditsinskogo instituta.

(MARSH TEA)

POLUEKTOVA, L. S. (Candidate of Veterinary Sciences, Novosibirsk NIBS).

"The needles of fir trees - a valuable vitamin food supplement..."
Veterinariya, vol. 39, no. 2, February 1962 pp. 61

POLUEKTOVA, N. A. Cand Med Sci -- "Clinic and treatment of cancer of the infraligamentary section of the larynx." Mos, 1961 (Acad Med Sci USSR). (KL, 4-61, 210)

POLUEKTOVA, Ye.F.

BEZBORODOV, M.A., professor; POLUEKTOVA, Ye.F.

Bentonite faience for facing ceramics. Stek. i ker. 14 no.4: 13-16 Ap '57. (MLRA 10:5)

1. Akademik Akademii nauk Belorusskoy SSR.
(Bentonite) (Ceramic materials)

POLUEKTOVA, YE.F.

POLUEKTOVA, YE.F.--"Investigation of the Certain West-Ukrainian Bentointe Clays and the Production of Faced Faience on a Base Made of Them". *(Dissertations For Degrees In Science And Engineering At USSR, Higher Educational Institutions). (34). Min Higher Education USSR, Belorussian Polytechnic Inst imeni I.V. Stalin, Minsk, 1955.

SO: Knizhnaya Letopis', No.34, 20 August 1955

* For the Degree of Doctor of Technical Sciences

PoLUEKTOVA, YE. F.

PHASE I BOOK EXPLOITATION SOV/4578

Minsk. Belorusskiy politekhnicheskiy institut

Khimiya, tekhnologiya i istoriya stekla i keramiki (The Chemistry, Technology, and History of Glass and Ceramics) Minsk, Red.-izd. otdel BPI imeni I. V. Stalina, 1960. 138 p. (Series: Its: Sbornik nauchnykh trudov, vyp. 86) 1,200 copies printed.

Sponsoring Agencies: Ministerstvo vysshego, srednego spetsial'nogo i professional'nogo obrazovaniya BSSR; Belorusskiy politekhnicheskiy institut imeni I. V. Stalina.

Editorial Board: N. N. Yermolenko, Candidate of Technical Sciences, I. S. Kachan, and L. K. Petrov; Ed.: N. V. Kapranova; Tech. Ed.: S. A. Pesina.

PURPOSE: This book is intended for chemists and physicists interested in the composition, structure, and properties of glass and ceramics.

~~Card 1/6~~

The Chemistry, Technology, and History (Cont.) SOV/4578

COVERAGE: The articles contained in this collection deal with methods of studying the properties of various glass and ceramic compositions and the technology of glass and ceramics manufacture. The last two articles treat the history of silicate chemistry. No personalities are mentioned. References follow the articles.

TABLE OF CONTENTS:

THE PHYSICAL CHEMISTRY OF SILICATES

The Chemistry, Technology, and History (Cont.) SOV/4578

THE CHEMISTRY AND TECHNOLOGY OF CERAMICS

Card 5/6

POLUEKTOVA, Ye.F.

Bentonite in ceramic materials for casting. Bent.gliny Ukr. no.3:114-118 '59. (MIRA 12:12)

1. L'vovskiy politekhnicheskiy institut.
(Bentonite)

POLUEKTOVA, Ye.F.

Pyrometric and other properties of West Ukrainian bentonites.
Bent.gliny Ukr. no.3:119-129 '59. (MIRA 12:12)

1. L'vovskiy politekhnicheskiy institut.
(Ukraine, Western--Bentonite)

POLUEKTOVA, Ye.F.

Using the Gorbki bentonite as a plasticizer for faience materials.
Bent. gliny Ukr. no.1:94-99 '55. (MIRA 12:12)

1.L'vovskiy politekhnicheskiy institut.
(Transcarpathia--Bentonite) (Plasticizers)

TIKHONOV, V.A., prof.; GALABUTSKAYA, Ye.A.; POLUEKTOVA, Ye.F.; KUDRYAVTSEV, T.N.; SUVOROVA, O.F.; TOROPOV, N.A., red.; KVITKO, I.S., red.

[Laboratory manual on the chemistry of silicon and the physical chemistry of silicates] Praktikum po khimii kremniia i fizicheskoi khimii silikatov. L'vov, Izd-vo L'vovskogo univ., 1965. 291 p. (MIRA 18:9)

1. Chlen-korrespondent AN SSSR (for Toropov).

L 23142-66 EWT(m)/EWP(j)/T/EWP(t) IJP(c) JD/JG/RM
ACC NR: AP6006940 (A) SOURCE CODE: UR/0075/66/021/002/0187/0191

AUTHOR: Poluektova, Ye. N.

ORG: Institute of General and Inorganic Chemistry, AN UkrSSR, Odessa Laboratories (Institut obshchey i neorganicheskoy khimii AN UkrSSR, Laboratorii v Odesse)

TITLE: Dihydroxychromenols as photometric reagents for tungsten

SOURCE: Zhurnal analiticheskoy khimii, v. 21, no. 2, 1966, 187-191

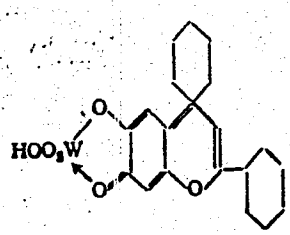
TOPIC TAGS: tungsten, photometric analysis, complex molecule

ABSTRACT: Some properties of compounds formed by dihydroxychromenols with tungsten and the applicability of dihydroxychromenols to the photometric determination of tungsten were studied. Of the four dihydroxychromenols (6,7-dihydroxy-2,4-dimethylbenzopyranol; 7,8-dihydroxy-2,4-dimethylbenzopyranol; 6,7-dihydroxy-2,4-diphenylbenzopyranol, and 7,8-dihydroxy-2,4-diphenylbenzopyranol) tested in $1 \cdot 10^{-3}$ M ethanol solutions, the one most sensitive to tungsten was found to be 6,7-dihydroxy-2,4-diphenylbenzopyranol, which was used for the photometric analysis of tungsten. With this reagent, tungsten forms a red complex thought to have the following formu-

Card 1/2 UDC: 543.70

L 23142-66
ACC NR: AP6006940

1a:



The molar extinction coefficients of aqueous solutions of the complex and chloroform extracts equal (3.9 ± 0.08) 10^4 and (9.3 ± 0.1) 10^4 respectively. The sensitivity of the determination is 0.04 µg W per ml (the sensitivity of the thiocyanate determination being 0.4 µg W per ml). Considerable amounts of Ni, Co, Ca, Mn^{2+}, Cr^{3+}, Zn, complexon III, and molybdenum do not interfere; iron and small amounts of Al, V(V), Ti, Zr, Hf, Sn, and Ge can be masked with complexon III, but niobium and tantalum have to be separated. Orig. art. has: 5 figures, 1 table.

SUB CODE: 07/ SUBM DATE: 17Jul64/ ORIG REF: 004/ OTH REF: 002

Card 2/2 UDR

POLUEKTOVA, Ye.N.; NAZARENKO, V.A.

Trihydroxy fluorones as reagents for the photometric determination of tungsten. Zhur. anal. khim. 19 no.7:856-863 '64. (MIRA 17:11)

1. Institute of General and Inorganic Chemistry, Ukrainian S.S.R. Academy of Sciences, Laboratories in Odessa.

NAZARENKO, V.A.; POLUEKTOVA, Ye.N.

Interaction of germanium with purpurogallin. Zhur. anal. khim. 19 no.12:1459-1463 '64 (MIRA 18:1)

1. Institute of General and Inorganic Chemistry, Ukr.S.S.R. Academy of Sciences, Laboratories in Odessa.

L 25396-65 EWT(m)/EWP(j) RM

ACCESSION NR: AP5001462 S/0075/64/019/012/1459/1463

AUTHOR: Nazarenko, V. A.; Poluektova, Ye. N.

TITLE: Reaction of germanium with purpurogallin

SOURCE: Zhurnal analiticheskoy khimii, v. 19, no. 12, 1964, 1459-1463

TOPIC TAGS: purpurogallin, germanium, germanium complex, spectrophotometry, germanium reaction

ABSTRACT: The purpose of this investigation was to study in greater detail the reaction of germanium with purpurogallin(trihydroxybenzo-6,7-tropolone) (I) with the possibility of using it for spectrophotometric determination of germanium. Germanium reacts with (I) in a broad pH interval, forming weakly colored yellow or light pink solutions. In the presence of ethanol and gelatin solutions remain transparent. Absorption curves of the complex have a maximum at 340 mμ (fig. 1) By isomolar series it was established that (I) reacts with germanium as orthohydroxycarbonyl compound, forming a complex with two liquids. Purpurogallin can

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L 25396-65

ACCESSION NR: AP5001462

be used for spectrophotometric determination of germanium. The molar extinction coefficient in 3N HCl at 340 mμ is 3.42×10^4. The Beer's law is obeyed within 0.1 - 3.4 μg/m; of the Ge region. Orig. art. has: 2 tables and 5 figures

ASSOCIATION: Institut obshche i neorganicheskoy khimii AN USSR, laboratorii v Odesse (Institute of General and Inorganic Chemistry AN UkSSR, Odessa Laboratory)

SUBMITTED: 11Dec63 ENCL: 01 SUB CODE: GC

NR REF SOV: 006 OTHER: 006

Card 2/3

L 25396-65

ACCESSION NR: AP5001462

ENCLOSURE: 01

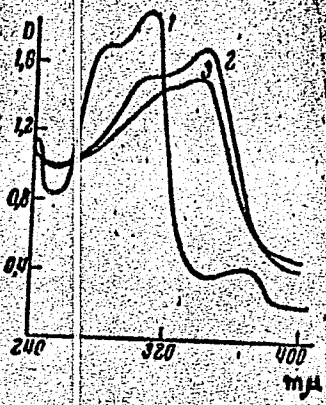

fig.1
Absorption spectra of purpurogallin (1) and its germanium complexes (2, 3)

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Polyektova, E. F.

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/A bentonite faience for glazed ceramics. M. A. Bezborodov and E. F. Polyektova. *Steklo i Keram.* 14, No. 4, 13-16(1957).—The use of bentonite clays of medium quality, e.g. cntg. SiO_2 54.7, Al_2O_3 25.0, Fe_2O_3 5.1, CaO 1.3, MgO 2.2, R_2O 0.81, H_2O of hydration 10.9%, is suggested for broad ing the raw material base in faience production, making p ssible economy in the use of the crit. white clays, reducing c sts of transport, diminishing the thickness of the tiles, elim nating much of the breakage, and lowering the fuel cost i the drying and firing operations. One of the most satisfactory of the 4-component mixts. consists of kaolin 73, bentonite 13, quartz sand 5, and pegmatite 7%, to give the formula $1(R_2O + RO)\,8.389\,R_2O_3\,40.992\,RO_2$. Phys. tests on air-dried test pieces showed bending strength (kg./sq. cm.) of 60. Results of tests after firing between the limits of 1000° and 1250°, resp., show shrinkage 1.6 and 2.5; water absorption 19.8 and 15.6; compressive strength (kg./cc.) 710 and 1785; bending strength 153 and 312; whiteness no. 78. H. L. Olin

POLUEKTOVA, E. F.

3

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4 2027. Benton[ite] [fa]lence for facing ceramics.—M. A. Bezborodov and E. F. Polu[ek]TOVA (*Glass [and] Ceramics*, Moscow, 14, No. 4, 13, 1957). In Russian. Experiments were carried out on the use of bentonite clays in wall-tile bodies. Specimens (for semi-dry pressing) were prepared in 3 series: (1) kaolin and bentonite; (2) kaolin, bentonite, and quartz sand; (3) kaolin, bentonite, quartz sand, and pegmatite. The content of bentonite varied from 6 to 30%. Mixes containing 8% moisture were pressed at 2,[0]50 p.s.i. and tested, green and dry, for transverse and crushing-strengths. The strength increased with increasing bentonite content, but non-uniformly, showing maxima between 10–15% and between 25–30% bentonite. The first maximum might be due to a denser packing and the second to the high content of fine bentonite virtually conferring on the body the properties of a clay. The best firing-temperature was 1,150°–1,180°. The high green strength and resistance to breakdown in water make once-firing possible. The whiteness of ware containing up to 15% bentonite is high (78–85%). 2 tables.)

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POLUEKTOVA, Ye.F.

Effect of bentonite on properties of faience materials. Bent. gliny Ukr. no.2:156-164 '58. (MIRA 12:12)
(Bentonite) (Ceramic materials)

POLUEKTOVA, Ye.F.

Effect of bentonite on the durability of unfired faience. Bent. gliny Ukr. no.2:165-168 '58. (MIRA 12:12)

1.L'vovskiy politekhnicheskiy institut.
(Ceramic materials) (Bentonite)

POLUEKTOVA, Ye.F., kand.tekhn.nauk (L'vov)

Concrete clays in the manufacture of ceramic products. Sbor. nauch. trud. Bel. politekh. inst. no.86:111-116 '60. (MIRA 13:10)
(Clay) (Ceramics)

NAZARENKO, V.A.; POLUEKTOVA, Ye.N.

Determination of zirconium impurity in niobium and its pentoxide. Zav.lab. 28 no.6:656-658 '62. (MIRA 15:5)

1. Institut obshchey i neorganicheskoy khimii AN USSR.
(Zirconium--Analysis) (Niobium--Analysis)

GRIZO, V.A.; POLUEKTOVA, Ye.N.

n-Resorcinol as a reagent for the photometric determination of boric acid [with summary in English]. Zhur.anal.khim. 13 no.4: 434-438 Jl-Ag '58. (MIRA 11:11)

1. Odesskiy farmatsevticheskiy institut.
(Boric acid) (Resorcinol) (Photometry)

RAYKHER, S.A.; POLUEKTOV, Ya.V., redaktor; POPOLOV, Ya.N., redaktor izdatel'stva; UVAROVA, A.F., tekhnicheskiy redaktor

[Safety measures in heat treatment shops] Tekhnika bezopasnosti v termicheskikh tsekhakh. Izd. 2-oe, perer. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 143 p. (MLRA 10:1)
(Machine-shop practice--Safety measures)

POLUEKTOVA, N.A.

POLUEKTOVA, N.A., aspirant

Growth peculiarities and histological structure of subglottic cancer [with summary in English]. Vest.oto-rin. 19 no.4:43-47 Jl-Ag '57. (MIRA 10:11)

1. Iz oto-laringologicheskogo (LOR) otdeleniya Gosudarstvennogo onkologicheskogo instituta imeni P.A.Gertsena, Moskva.

(LARYNX, neoplasms
subglottal, growth & pathol.)

L 2124-65 EWT(m)/EWP(q)/EWP(b) AS(mp)-2/ASD(a)-5/APGC(b)/AFWL/ASD(f)/BSD/
ACCESSION NR: AP4042625 ESD(g)/ESD(t) JD/JG/RM S/0075/64/019/007/0856/0863

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AUTHOR: Poluektova, Ye. N.; Nazarenko, V. A.

TITLE: Trihydroxyfluorones as reagents for the photometric determination of tungsten 21

SOURCE: Zhurnal analiticheskoy khimii, v. 19, no. 7, 1964, 856-863

TOPIC TAGS: tungsten, photometric analysis, trihydroxyfluorone, trihydroxyfluorone derivative, molar ratio method, isomolar series method, complex formation, complex dissociation, absorption spectrum, interfering ions, complex polymerization

ABSTRACT: The following derivatives of 2,3,7-trihydroxy-6-fluorone were examined as reagents for the photometric determination of tungsten: (substituents on the C-9 position): trichloromethyl, propyl, phenyl, 4-bromophenyl, 2-hydroxyphenyl, 4-hydroxyphenyl, 2-hydroxy-1-naphthyl, 4-hydroxy-3-methoxyphenyl, 5-bromo-2-hydroxyphenyl, 2-nitrophenyl, 3-nitrophenyl, 4-nitrophenyl, 2,4-dinitrophenyl, 3-nitro-2-hydroxyphenyl, 5-nitro-2-hydroxyphenyl, 6-nitro-4-hydroxy-3-methoxyphenyl, 4-dimethylaminophenyl, 2,4-disulfophenyl, and 9-anthracenyl. It was found that those trihydroxyfluorones requiring least ethanol in the solution were the most sensitive

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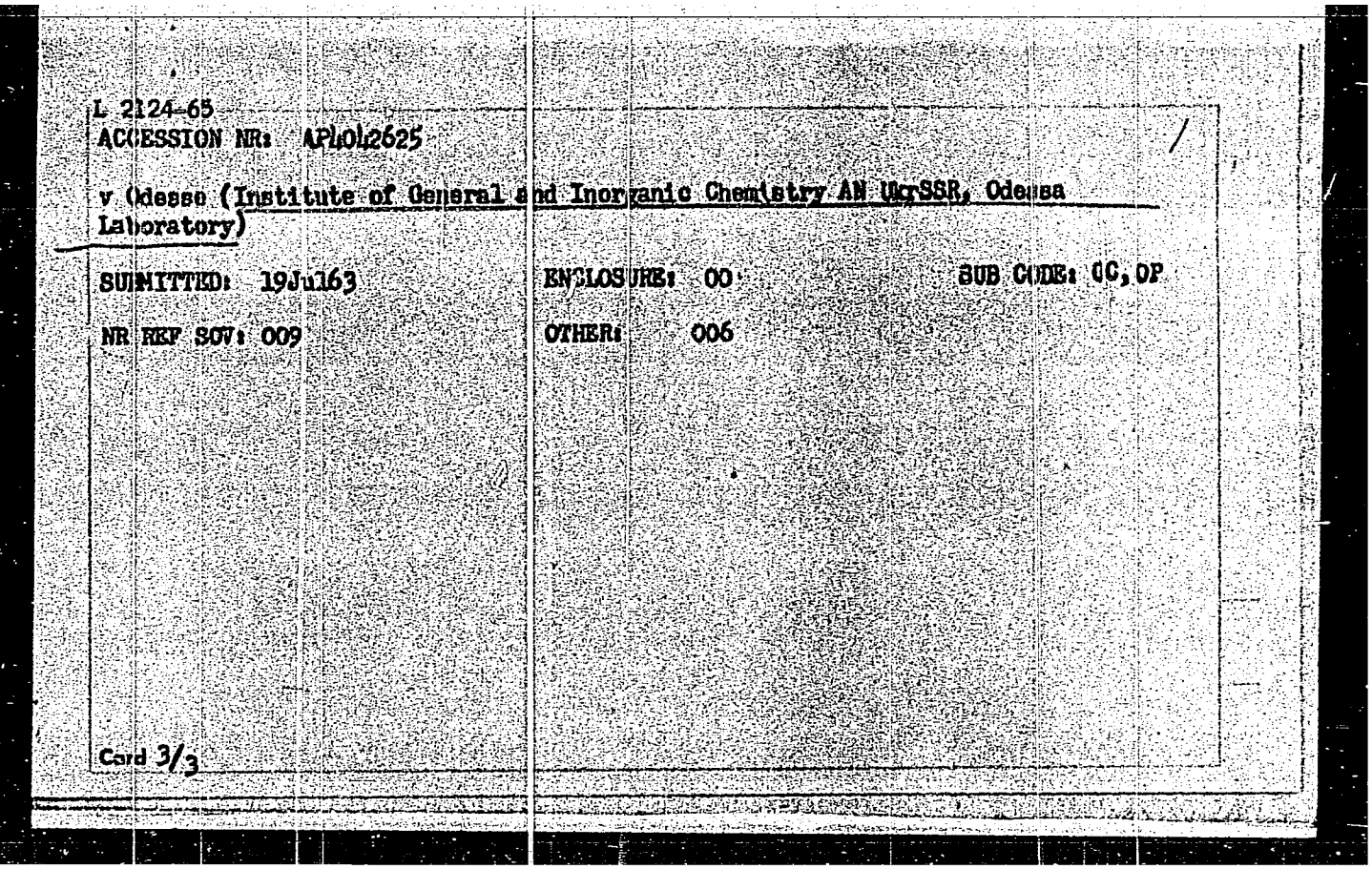
L 2124-65
ACCESSION NR: AP4042625

reagents for tungsten. The 9-(2'-hydroxyphenyl)-and the 9-(9'-anthracenyl)-2,3,7-trihydroxy-6-fluorones were considered the best reagents, considering among other factors their ease of synthesis. The 2,4-disulfophenyl-, 2-(or 4-)nitrophenyl- and 2-hydroxy-1-naphthyl-derivatives were also desirable. The complexes formed with tungsten have a 1:1 component ratio as determined by the molar ratio and the isomolar series methods. The maximum optical density was attained with a 2-3 fold excess of the reagent. Most of the trihydroxyfluorones started to react with tungsten at pH 0.5-1, the color intensity increased up to pH 2-3.5. At pH 4-4.5 the dissociation of the complex and color of the reagent increased. The absorption spectra of the tungsten complexes shifted toward the long wave (475-530 millimicrons) in comparison with the spectra of the reagents (450-475 millimicrons). Maximum optical density was attained in 30 minutes and remained constant for 24 hours. On heating or aging, a second maximum appeared in the 560-580 millimicron region indicating polymerization of the complex; the optical density of the second maximum remained unchanged for 2-3 hours and then decreased. Mo, Nb, Zr, Ge, SnIV and Sb III interfered with the determination of tungsten in strong and moderately acid solutions. Orig. art. has 2 formulas, 2 tables and 6 figures.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN UkrSSR Laboratorii

Card 2/3



L 2124-65
ACCESSION NR: AP4042625

V (Odessa (Institute of General and Inorganic Chemistry AN UkrSSR, Odessa Laboratory)

SUBMITTED: 19Jun63 ENCLOSURE: 00 SUB CODE: GC, OP

NR REF SOV: 009 OTHER: 006

Card 3/3

B/032/62/028/006/003/025
B110/B101

AUTHORS: Nazarenko, V. A., and Poluektova, Ye. N.

TITLE: Determination of zirconium impurities in niobium and niobium pentoxide

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 6, 1962, 656 - 658

TEXT: Photometric determination of 0.001% Zr in Nb is carried out by separating the zirconium from the niobium through precipitation with alkali (KOH) in the presence of H_2O_2. The niobium remains dissolved in the form of perniobate. Iron hydroxide is used as a collector. The present determination was made with phenyl fluorone in an 0.2 - 0.3 N HCl solution containing 30% C_2H_5OH which prevented the precipitation of zirconium phenyl fluoronate. The solution was stabilized with gelatin. At a wavelength of 535 mμ, the optical density D is a linear function of the amount of zirconium between 0 and 50 μg. As trivalent iron interferes with the determination, it was reduced to bivalent iron by using thioglycolic acid. There is 1 table.

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S/032/62/028/006/003/025
Determination of zirconium ... B110/B101

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk USSR (Institute of General and Inorganic Chemistry of the Academy of Sciences UkrSSR)

Card 2/2

L 18496-63 EPF(n)-2/EWP(q)/EWT(m)/BDS AFFTC/SSD Pu-4 JAJ/RM/WW/JD/MAY/
ACCESSION NR: AP3007374 S/0186/63/005/004/0497/0499 JG

AUTHOR: Nazarenko, V. A.; Biryuk, Ye. A.; Poluektova, Ye. N. 70

TITLE: Separation of small amounts of thorium from rare earth elements, iron, and aluminum on an ion-exchange resin containing a sorbed reagent

SOURCE: Radiokhimiya, v. 5, no. 4, 1963, 497-499

TOPIC TAGS: ion exchange, ion exchange resin, ion exchanger, thorium, rare earth metals, iron, aluminum, anion exchange, anion-exchanging substances, anion exchanger, anion exchange resin, AV-17, AV-17 anion exchanger, AV-17 anion exchange resin, toron, benzenearsonic acid. o-(2-hydroxy-3,6-disulfo-1-naphthylazo)-, 2-naphthol-3,6-disulfonic acid. 1-(o-arsonophenylazo)-, cation exchange, cation exchanger, reverse anion exchanger, thorium determination, thorium separation, thorium isolation, yttrium, europium, promethium, yttrium oxide, La_2O_3, aluminum chloride

ABSTRACT: A study has been made of the separation of Th from rare-earth elements, Fe, and Al by the selective adsorption of Th ions

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L 18496-63
ACCESSION NR: AP3007374

on AV-17 anion exchanger [made from styrene, divinylbenzene, and trimethylamine (see: Zh. f. kh., v. 36, no. 11, Nov 1962, 2465-2468)] treated with "toron" (1-(o-arsonophenylazo)-2-naphthol-3,6-disulfonic acid) to form a "reverse anion exchanger" which acts as a cation exchanger toward Th only. A "reverse anion exchanger" is defined as one treated with an organic compound containing both a group reacting selectively with the ion to be separated, and an acid group (preferably a sulfo group) for attachment to the original anion exchanger. Separation of Th was carried out in a glass column 20—25 cm long and 0.8 cm in diameter. Three grams of AV-17 anion exchanger (pretreated with water and an alkali) was placed in the glass column, treated with a 0.5% toron solution, and washed with water. The Th-containing influent (20—30 ml), acidified with 0.2 g ascorbic acid (to an acidity equivalent to 0.05 N HCl), was passed through the column at a rate of 0.5 ml/min. The adsorbed Th was then eluted with 1 N HCl. The amount of Th so separated was determined by the spectrophotometric method (V. I. Kuznetsov, ZhOKh, 13, 914 (1944); S. B. Savvin, DAN SSSR, 127, 6, 1231 (1959)). After elution the anion exchanger may be used again without additional treatment with toron. Microquantities of Th (down to 1 x 10^{-4}%)

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L 18496-63
ACCESSION NR: AP3007374

may be separated and determined in the presence of rare earths, Al, and Fe by this method. The behavior of Y, Eu, Pm, and Fe on the AV-17 "reverse anion exchanger" under the conditions described was also studied, using Y^{91}, Eu^{152}, Eu^{154}, Pm^{147}, Fe^{55}, and Fe^{59}. Tabulated data on the radioactivity of the solutions before and after they were passed through the column show that these elements are not adsorbed by the anion exchanger. The method described was used to determine Th in Y_2O_3, La_2O_3, total rare-earth chlorides, and $AlCl_3$. Orig. art. has: 1 formula and 3 tables.

ASSOCIATION: none

SUBMITTED: 08Sep62 DATE ACQ: 070ct63 ENCL: 00

SUB CODE: CH NO REF SOV: 003 OTHER: 000

Card 3/3

AUTHORS: Grizo, V. A., Poluektova, Ye N SOV/75-13-4-10/29

TITLE: Investigation of the Dye H-Resorcinol as a Reagent for the Photometric Determination of Boric Acid (Izucheniye azokrasitelya H-rezortsina kak reaktiva dlya fotometricheskogo opredeleniya bornoy kisloty)

PERIODICAL: Zhurnal analiticheskoy khimii, 1958, Vol. 13, Nr 4, pp 434-438 (USSR)

ABSTRACT: For the photometric determination of boric acid hydroxy-anthraquinones containing a hydroxyl group in a peri-position to the quinone group are used. The intensely colored solutions of these compounds in concentrated sulfuric acid change their color at an addition of boric acid. Some other organic compounds, however, containing a hydroxyl group in the vicinity of a carbonyl group (Refs 1, 2) also react with boric acid in concentrated sulfuric acid. Other methods of determining boric acid make use of its reaction with curcumin, a derivative of dibenzoyl methane, or with derivatives of salicylic acid (Ref 3) As a contrast to all these color reactions, that were carried out in concentrated sulfuric acid or after elimination of the water by concentrating, reactions were found which can be car-

Card 1/4

Investigation of the Dye H-Resorcinol as a Reagent for the Photometric Determination of Boric Acid

ried out in slightly acetous solutions (Ref 4). Compounds containing 2 hydroxyl groups in the peri- and ortho-position next to an azo or azomethine group serve as reagents. The authors of the present paper investigated the reaction of the azo dye from diazotized H-acid and resorcinol ("H-resorcinol") with boric acid as well as the reaction with the azomethine compound, which develops from H-acid and salicylic aldehyde. In the first case the color of the solution changes from yellow to pink, in the second case the acetous solutions become light yellow. The authors investigated the composition of the compound from H-resorcinol and boric acid. The photometric measurements were carried out on a universal photometer of the type ЭФМ using light filters M-53 (λ_{max}=530mμ). The highest absorption occurs at a molar ratio of boric acid and the reagent of 1:1. Therefore in the new compound one molecule of boric acid falls to one molecule of H-resorcinol. The determination of the dissociation constant of the complex in solution showed that neither the degree of dissociation α nor the dissociation constant K_D at

Card 2/4 p_H-values of 2,2 up to 3,0 is dependent on the p_H-value. The

Investigation of the Dye H-Resorcinol as a Reagent for the Photometric Determination of Boric Acid

mean value of K_D in this range is $6,33.10^{-5}$, for α a value of 0,658 was found. A high excess of the reagent is detrimental as the solution of the reagent highly absorbs in that range of wave-lengths, in which also the light absorption of the complex is measured (530mμ). The best conditions for photometric determination of boron according to this method turned out to be a quantity of 4-5 ml of a 10^{-3}molar solution of H-resorcinol and 5 ml 1 n acetic acid for 1,1γ - 66γ boron in a total volume of 50 ml. The intensity of the color increases with time and only after 6 hours reaches a practically constant value. Therefore the solution to be investigated has to be left to stand for 6 hours before measuring. It is not necessary to heat the solution. As the dependence of light absorption of the complex on the concentration of boron is not rectilinear, it is necessary to establish a calibration curve for the determination. There are 4 figures, 4 tables, and 8 references, 7 of which are Soviet.

SOV/75-13-4-10/29

Investigation of the Dye H-Resorcinol as a Reagent for the Photometric Determination of Boric Acid

ASSOCIATION: Odesskiy farmatsevticheskiy institut (Odessa Pharmaceutical Institute)

SUBMITTED: November 10, 1956

1. Resorcinol---Chemical reactions 2. Reagents---Performance
3. Boric acid---Determination 4. Boric acid---Chemical reactions
5. Photometry

Card 4/4

NAIDUSKEVICIUS, R., otv. red.; POLUIKIS, J., red.; KRUPOVNICKAS, V., tekhn. red.

[Means of production in the machine and machine-tool industry of the Lithuanian S.S.R.] Gamybos rezervai Lietuvos TSR masinu ir prietaisu pramoneje. Vilnius, 1962. 135 p. (MIRA 16:1)

1. Lietuvos TSR Maginu ir Prietaisu Gamybos Pramones Darbuotoju Ekonimine Konferencija, Vilnius, 1962.
(Lithuania--Machinery industry)
(Lithuania--Machine-tool industry)

MESKAUSKAS, K.; PURONAS, V.; POVILIUNAS, A.; MALISAUSKAS, V.; JANUSKEVICIUS, V.; BERKAMNAS, E.; KRUTULYS, V., spets. red.; POLUIKIS, J., spets. red.; CIMBOLENKA, P., red.; ANAITIS, J., tekhn. red.

[Twentry years of the Soviet Lithuanian national economy] 20 metu Tarybu Lietuvos liaudies ukiui. Vilnius, Valstybine politines ir mokslines literaturos leidykla, 1960. 315 p. (MIRA 15:6)

1. Lietuvos TSR Mokslu akademija, Vilna. Ekonomikos institutas. (Lithuania--Economic conditions)

POLUJAN, W.

The organization of rural building shows serious deficiencies.

P. 12 (BUDOWNICTWO WIEJSKIE) Poland, Vol. 6, No. 6, June 1956

SO: Monthly Index of East European Accessions (AEEI) Vol. 6, No. 11, November 1957

17

POLAND

AUGUSTYNOWICZ, L.; MALINKOWSKI, [illegible] STANKIEWICZ, [illegible] POLUJANSKI, P.; STANKIEWICZ, W.; and TOMICKI, Z., Section of Small Animal Diseases of the Department of Veterinary Medicine of the College of Agricultural Economics (Zaklad Chorob Zwierzat Malych Wydz. Wet. SGGW) Head (Kierownik) Prof. Dr. Wladyslaw Stankiewicz, [Warsaw]

"Suitability of the Preparation "Mepatar - Polfa" in the Treatment of Domestic Animals"

Lublin, Medycyna Weterynaryjna, Vol 22, No 9, Sep 1966; p. 550-551

Abstract [English summary modified]: Study of Mepatar Polfa (medicated feed supplement containing 5% oxytetracycline) in dogs, evaluating the blood level, adequacy, and safety; therapeutic use in dogs with nephritis and in minks with enteritis or urinary tract infections, and in poultry with upper respiratory disease, was rather uniformly successful.

1/1

BUBNOV, A.N., inzh.; [illegible]

Steam generator with a superheater for vessels of the United States Navy. Sudostroenie no.6:37-42 Je '56.

(MIRA 18:8)

BUBENTSOV, A.M., inzh.; POLUKANIN, P.N., inzh.

Effect of the axial racing of the rotor on the performance of sliding thrust bearings. Sudostroenie 27 no.12:29-33 D '61. (MIRA 15:1)

(Marine engineering)

BUBENTSOV, A.M.; POLUKANIN, P.N.

Standardization of thrust bearings for turbines and compressors.
Standartizatsiia 26 no.4:13-18 Ap '62. (MIRA 15:3)
(Bearings (Machinery)--Standards)

POLUKANIN, P.N., inzh.

Hydraulic reverse transmission for marine turbines.
Sudostroenie 25 no.3:70-72 Mr '59. (MIRA 12:5)
(Great Britain--Oil hydraulic machinery)
(Great Britain--Marine turbines)

BUBENTSOV, A.M., inzh.; POLUKANIN, P.N., inzh.

Effect of the material for cushions of thrust sliding bearings on their load carrying capacity. Vest.mash. 42 no.4:23-27 Ap '62. (MIRA 15:4)

(Bearings (Machinery)--Testing)

DUBNYAKOV, K.I., inzh.; FOLUKANIN, P.N., inzh.

Controllable pitch propeller and the system of handling the ship "John Sargeant." Sudostroenie 27 no.8:61-66 Ag '61. (MIRA 14:9)
(United States--Ships)

BUBENTSOV, A.M., inzh.; POLUKANIN, P.N., inzh.

Friction power losses and consumption of lubrication oil by turbine thrust bearings. Energomashinostoenie 7 no.11:34-38 N '61. (MIRA 14:11)

(Bearings(Machinery))
(Turbines)

BUBENTSOV, A.M.; POLUKANIN, P.N.

Rolled thin-walled bushings. Mashinostroitel' no.8:40 Ag '62. (MIRA 15:8)

(Bearings (Machinery))

BUBENTSOV, A.M., inzh.; POLUKANIN, P.N., inzh.

Achievements of the "Pametrada" scientific research station in the field of development and design of marine steam turbines (from foreign journals). Sudostroenie 28 no.8:52-58 Ag '62. (MIRA 15:8)

(Steam turbines, Marine)

DERZHAVETS, Yu.A., inzh.; POLUKANIN, P.N., inzh.

Reversible planetary reductors for ships. Sudostroenie 30 no.5:60-64 My '64. (MIRA 17:6)

BUBENTSOV, A.M.; POLUKANIN, P.N.

Standardization of the parts of rotors of turbines and compressors. Standartizatsiia 27 no.12:14-20 D '63. (MIRA 17:4)

BUBENTSOV, A.M.; POLUKANIN, P.N.

Standardization of sliding thrust bearings. Standartizatsiia 27 no.3:17-24 Mr '63. (MIRA 16:4)
(Bearings (Machinery)--Standards)

DERZHAVETS, Yu.A.; POLUYANIN, P.I.

Planetary reductors in marine diesels and combined diesel-gas turbine engines. Sudostroenie no. 11:38-43 N '65 (MIRA 19:1)

37094
S/028/62/000/004/001/004
D262/D301

26.2122
AUTHORS: Bubentsov, A.M. and Polukanin, P.N.

TITLE: Standardization of thrust bearings for turbines and compressors

PERIODICAL: Standartizatsiya, no. 4, 1962, 13 - 18

TEXT: The article describes in detail the new standard MH 25-60 (MN25-60) for two-sided sliding thrust bearings for turbines and compressors. The standard, worked out in 1960 by the Leningradskiy Kirovskiy zavod (Leningrad Kirov Plant), covers five typical sizes of thrust bearings ranging from 80 to 150 mm dia. of thrust shaft neck, for loads from 2.9 to 14.2 tons at mean unit pressure of 20 and 28 kg/cm^2, and mean peripheral velocity up to 73 m/sec. Basic characteristics are presented in the form of a table. In the specification are included: Type, dimensions, surface finish, component materials (steel bearing races and thrust blocks, bronze packing rings, brass or white copper oil rings, smooth surface method

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S/136/62/000/010/001/004
E193/E383

AUTHOR: Polukarov, A.N.

TITLE: Improving the quality of technical-grade tellurium

PERIODICAL: Tsvetnyye metally, no. 10, 1962, 63 - 68

TEXT: The purity of vacuum-distilled or zone-refined tellurium depends to a large extent on the purity of the starting material, which is normally technical-grade (T-1) tellurium. This material is obtained from crude tellurium (90 - 95% Te, 5-3% Se) at one of the metallurgical plants by a method which entails heating to dryness a mixture of tellurium and sulphuric acid, alkaline leach of the resultant oxide, electrolytic extraction of tellurium from alkaline electrolyte and smelting of the cathode tellurium. The present author has studied the effect of various factors on the efficiency of every stage of this process and established the conditions under which a final product of grade TA-1, i.e. of higher quality than T-1, could be produced. The starting material used in his experiments contained 93% Te and 4% Se. The main findings of this investigation can be summarized as follows:

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Improving the quality of ....

1) The sulphuric-acid treatment: The chemistry for this process is described by the following equations:

$Te + H_2SO_4 \rightarrow TeSO_3 + H_2O$ (20°-50°C)

$2TeSO_3 + 3H_2SO_4 = 2TeO_2SO_3 + 4SO_2 + 3H_2O$ (150°-250°C) p.64

$2Te + 5H_2SO_4 = 2TeO_2SO_3 + 4SO_2 + 5H_2O$ (200-250°C)

$2(2TeO_2 \cdot SO_3) + Te = 5TeO_2 + 2SO_2$ (400°-450°C).

It was established by the present author that if the quantity of sulphuric acid used in this process were reduced to that required theoretically, according to the equation

$$Te + 2H_2SO_4 = TeO_2 + 2SO_2 + 2H_2O ,$$

a final product, practically free from combined sulphuric acid which was liable to cause difficulties in subsequent leaching operations, was obtained (neither the degree of oxidation of tellurium nor removal of selenium by distillation was affected by this change). Stirring in the last stage of this operation (at 400 - 450 °C) will ensure a minimum content of

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Improving the quality of ....

metallic tellurium and combined sulphuric acid in the final product which does not require grinding before the subsequent alkaline leach if strict control of temperature (as indicated in the above equations) is exercised.

2) Alkaline leach of the product of the sulphuric-acid treatment and purification of the electrolyte: The product used in these experiments had the following composition: 77.6% Te_{total}; 76.7% $Te_{oxidized}$; 0.2% Se_{total}; 0.01% $Se_{oxidized}$ and 1.0% SO_3. The results of various experiments indicated that the concentration of free sodium hydroxide in the starting solution and the liquid:solid ratio should be such as to give a free sodium hydroxide content in the final solution not greater than 20 g/litre and a tellurium content not lower than 90 - 100 g/litre. Leaching should be carried out at room temperature but on completion of this operation the solution should be heated to 60 - 70 °C to facilitate flocculation and settling of the insoluble residues. Addition of sodium sulphite to the leaching solution (in the proportion 2 g sodium sulphite per 1 kg

tellurium oxide) will precipitate as insolubles Pb, Ag, Au and Fe.
3) Electrolytic extraction of tellurium: These experiments were carried out at room temperature without circulating the electrolyte at a current density of 50 A/m^2, stainless steel being used as the electrode material. Dense, finely-crystalline cathode deposits were obtained from electrolytes containing 40 - 35 g/litre Te; on lowering the Te content to 25 - 20%, friable deposits were obtained which adhered firmly to the cathode. Reducing the Te in the electrolyte to 3 - 5% caused deposition of tellurium powder and evolution of hydrogen on the cathode. No Se could be detected by chemical analysis in tellurium deposits obtained from electrolytes with 35 - 40 g/litre Te. The optimum concentration of Te in the electrolyte from the point of view of efficiency of the process was 50 - 80 g/litre.
4) Smelting of cathode tellurium: The best results were obtained when compact cathode deposits were used. This eliminated the risk of contamination during grinding, speeded-up the melting process and reduced the losses of tellurium in the slag. Melting was done in porcelain crucibles, held for 30 min in a muffle

furnace at 700 - 720 °C. The results of spectrographic and chemical analysis showed that the smelting operation removed from the starting material practically all Fe, Si, As, Bi and Mg, reduced the Pb content of the metal but did not affect the concentration of Cu, Ni, Ag and Au. There are 7 tables.

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POLUKAROV, A. N.

Improve the quality of commercial tellurium. TSvet. met. 35 no.10:63-68 O '62. (MIRA 15:10)

(Tellurium—Electrometallurgy)

SOV/136-59-1-15/24

AUTHORS: Polukarov, A.N. and Smirnov, V.I.

TITLE: Sulphatizing Roasting of Gold-Containing Slimes (Sul'fatiziruyushchiy obzhig zolotosoderzhashchikh shlamov)

PERIODICAL: Tsvetnyye Metally, 1959, Nr 1, pp 71-72 (USSR)

ABSTRACT: The authors briefly discuss sulphatizing roasting practice in Canada and Finland and describe their own laboratory experiments. Their object was to find a rational scheme for the sulphatizing roasting of two slimes of the following respective percentage compositions: Cu, 15.0, 3.2; Ni, 0.8, 1.3; Pb, 7.0, 10.0; SiO_2, 6.0, 10.0; Se, 5.0, 6.2; Te, 1.3, 1.6; Ag, 25.0, 28.0; Au, 1.8, 2.3; Sb, 11.0, 13.0; As, 2.2, 2.7; no platinoid metals. The reactions were effected at 170-230°C for 1.5 to 2 hours. For the copper-rich material the optimal sulphuric-acid (specific gravity 1.83) consumption was 90% of the slime weight and 70% for the other. High degrees of copper recovery on water leaching of the sulphatized slime were obtained with acid consumptions as low as 50%. Selenium volatilizations of 96-98% were obtained with sulphatized slimes, the maximal

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Sulphatizing Roasting of Gold-Containing Slimes

extractions of tellurium into solution being 60 and 30% with alkaline and sulphuric-acid leaching, respectively. The authors attribute the relative ineffectiveness of the latter to the presence of large quantities of silver sulphate and conclude that sulphatizing roasting should be restricted to slimes with less than 10% silver.

Card 2/2

POLUKAROV, A. N. Cand Tech Sci — (diss) "Concerning the question of extracting selenium and tellurium from electrolytic slurries," Sverdlovsk, 1960, 13 pp, 200 cop. (Ural Polytecnical Institute im S. M. Kirov) (KL, 42-60, 114)

5(2) SOV/32-25-8-4/44

AUTHOR: Polukarov, A. N.

TITLE: Determination of Selenium and Tellurium in Gold Containing Platinoid Muds

PERIODICAL: Zavodskaya laboratoriya, 1959, Vol 25, Nr 8, pp 905-909 (USSR)

ABSTRACT: Three known methods for the determination of selenium (I) and tellurium (II) in gold-containing muds (M) were examined. The first one is based on the decomposition of (M) with HNO_3, precipitation of Ag with HCl and a precipitation of (I) and (II) from the solution with H_2S with the final determination of (II) being carried out iodometrically and of (I) with thiosulphate. The second method differs from the first one by the fact that (I) and (II) (after the Ag-precipitation) are precipitated with tin chloride and then in the dissolved precipitate (ppt), (I) is precipitated with hydroxylamine (or hydrazine) and that (II) is precipitated from the filtrate with tin chloride. According to the third method (Ref 1) the decomposition of (M) is somewhat different (from the two other methods)- (I) + (II) are then precipitated from the filtrate with lead nitrate and after the

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dissolution of the ppt and re-precipitation with tin chloride in dissolved ppt (I) is precipitated with potassium iodide and (II) from the filtrate with tin chloride with the final determination being carried out according to the first method. The experiments were carried out with a (M) of the following composition: 5.80% Se, 1.82% Te, 30% Ag, 2.0% Au, 11.0% Sb, 2.9% As, 16.0% Cu, and 12% Pb; the results obtained are compared (Table). After an explanation of the three methods it is stated that they are insufficient for the determination of (I) and (II) in (M) if (M) contains gold (V) or antimony (VI). The following method of analysis of such (M) is suggested: the (M) is decomposed by hydrochloric acid (with an addition of HNO_3).

(I) and (V) are separated from (II) with hydrazine. (II) is separated in the filtrate with hydrazine and then iodometrically determined. The (I) + (V) ppt is dissolved and (V) is precipitated with mercapto benzothiazole. Filtration is carried out after the Ag-precipitation and (I) is determined in the filtrate with thiosulphate. A course of analysis is mentioned.

Determination of Selenium and Tellurium in Gold Containing Platinoid Muds SOV/ 32-25-8-4/44

According to the last mentioned method also platinoid (M) may be analyzed under the precipitation of (I) with hydroxylamine and of (II) with iron chloride. The development of the methods of analysis for platinoid (M) was carried out with (M) of the following composition: 8.06% Se, 0.77% Te, 25.0% Cu, 24.0% Ni, 4.7% Ag, 0.5% Au, 0.3% Sb, traces of lead, 5.0% Pd, 7.5% platinoids. The results are given (Table) and also one course of analysis. There are 1 table and 9 references, 7 of which are Soviet.

ASSOCIATION: Pyshminskiy medeelektrolitnyy zavod (Pyshma Copper Electrolyte Works)

Card 3/3

POLUKAROV, A.N., KUPCHENKO, M.M.; Prinimali uchastiye: CHERNOBAY, A.I.; MALYSHEVA, F.I.; ZHDANOVICH, Yu.V., KOKAREV, A.V.; KOLTYSHEV, D.I.

Tellurium recovery from copper-electrolysis slime into sodium slag. TSvet. met. 33 no.8:56-57 Ag '60. (MIRA 13:8)
(Copper--Electrometallurgy)
(Tellurium)

POLUKAROV, A.N.; SMIRNOV, V.I.

Sulfatizing roast of gold-bearing slimes. TSvet. met. 32 no.1:71-72 Ja '59. (MIRA 12:1)
(Ore dressing) (Gold--Metallurgy)

SMIRNOV, V.I., professor; POLUKAROV, A.N., inzhener.

"Selenium and tellurium production." D.M.IUkhtanov. Reviewed by V.I.Smirnov, A.N.Polukarov. TSvet.met.29 no.1:78-79 Ja '56. (Selenium)(Tellurium)(Iukhtanov) (MIRA 9:6)

SMIRNOV, V.I., professor; POLUKAROV, A.N., inzhener.

"Selenium and tellurium production." D.M.IUkhtanov. Reviewed by V.I.Smirnov, A.N.Polukarov. TSvet.met.29 no.1:78-79 Ja '56. (Selenium)(Tellurium)(Iukhtanov) (MIRA 9:6)

ADRIANOVA, V.P.; ANDREYEV, T.V.; ARANOVICH, M.S.; BARSKIY, B.S.; GROMOV, N.P.; GUREVICH, B.Yu.; DVORIN, S.S.; YERMOLAYEV, N.F.; ZVOLINSKIY, I.S.; KABLUKOVSKIY, A.F.; KAPELOVICH, A.P.; KASHCHENKO, D.S.; KLIMOVITSKIY, M.D.; KOLOSOV, M.I.; KOROLEV, A.A.; KOCHINEV, Ye.V.; LESKOV, A.V.; LIVSHITS, M.A.; MATYUSHINA, N.V.; MOROZOV, A.N.; POLUKAROV, D.I.; RAVDEL', P.G.; ROKOTYAN, Ye.S.; SMOLYARENKO, D.A.; SOKOLOV, A.N.; USHKIN, I.N.; SHAPIRO, B.S.; EPSHTEYN, Z.D.; AVRUTSKAYA, R.F., red. izd-va; KARASEV, A.I., tekhn.red.

[Brief handbook on metallurgy, 1960] Kratkii spravochnik metallurga, 1960. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1960. 369 p. (MIRA 13:7)
(Metallurgy)

POLUKAROV, G.

Construction projects, finance, materials. Mest.prom.i khud.promys. 2 no.5:25-26 My '61. (MIRA 14:5)

1. Zamestitel' predsedatelya Sverdlovskogo oblispolkoma.
(Sverdlovsk Province--Construction industry)

POLUKAROV, G.V.

Seiches in the Caspian Sea. Trudy GOIN no.50:45-53 '60.
(MIRA 13:11)

(Caspian Sea—Seiches)

SOV/124-58-5-5376

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 5, p 60 (USSR)

AUTHOR: Polukarov, G.V.

TITLE: Calculating the Harmonic Constants for the Tidal Level of the Sea of Okhotsk (Vychisleniye garmonicheskikh postoyannykh urovnya dlya Okhotskogo morya)

PERIODICAL: Tr. Gos. okeanogr. in-ta, 1956, Nr 33 (45), pp 92-98

ABSTRACT: The problem considered is that of devising a method for calculation of the harmonic tide-level constants. In the basic equations for the motion of the tidal waves the author adopts the mean latitude of the Sea of Okhotsk ($\phi = 55^{\circ}$), whence the variation with latitude in the Coriolis force is not taken into account, and the sea is considered to be flat. To integrate the equations the method of finite differences is used; for this purpose the entire effective basin of the Sea of Okhotsk is assumed covered with a network of equidimensional squares having sides ~ 111 km long (1 meridional degree at the equator; Transl. Ed. Note). The harmonic constants were calculated for the lunar component M_2, for which at all points on the contour, where possible, the harmonic constants were selected from published data.

Card 1/2

Calculating the Harmonic Constants (cont.)

There were 42 such points. Calculations were carried out through the eighth approximation. The pattern of the lines of equal harmonic constants leads to the conclusion that the highest semidiurnal lunar-tide level in the Sea of Okhotsk is found in its northern part.

S.S. Voyt

1. Tides--Sea of Okhotsk 2. Tides--Mathematical analysis

Card 2/2

POLUKAROV, G.V.

Integration of tidal equations. Trudy GOIN no. 57:89-120 '60. (MIRA 14:1)
(Tides)

POLUKAROV, G.V.

Numerical method of determining the velocity components of tidal currents. Trudy GOIN no.33:115-126 '56. (MLRA 10:7)
(Ocean currents) (Tides)

POLUKAROV, G.V.

POLUKAROV, G.V.

Numerical methods for determining the tide level and the velocity of tidal currents. Trudy GOIN no.38:11-25 '57. (MIRA 10:12)
(Tides) (Differential equations, Partial)

18.8300, 5.1310

AUTHORS: Beloglazov, S. M., Polukarov, M. I.

TITLE: Concerning Hydrogen Brittleness of Steel, During Its Cathodic Polarization in Sulfuric Acid

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, No 2, pp 389-397 (USSR)

ABSTRACT: The authors studied changes in mechanical properties of steel which take place upon absorption of hydrogen during polarization. Pure sulfuric acid and sulfuric acid containing substances that catalyze absorption of hydrogen (SeO_2, As_2O_3, and colloidal tellurium) were used in experiments conducted at various temperatures, current densities, and concentrations of the acid. Figure 1 shows the electrolytic cell (constructed by S. M. Beloglazov) used for polarization of steel wires.

Card 1/8

Concerning Hydrogen Brittleness of Steel. During Its Cathodic Polarization in Sulfuric Acid

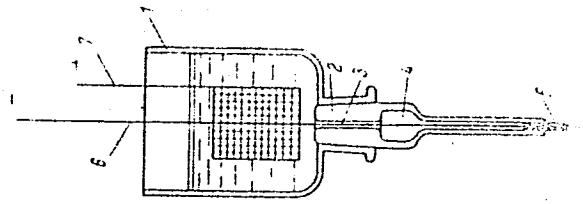

Fig. 1. Cell for studying absorption of hydrogen by a steel wire during its cathodic polarization. (1) electrolysis vessel; (2) ground glass stopper; (3) capillary in the stopper (~0.5 mm diam); (4) dilation in the capillary; (5) rubber stopper; (6) carbon steel wire (0.33 mm diam; (7) platinum net anode, surrounded by a glass coil for circulating water from ultrathermostat.

Card 2/8

Concerning Hydrogen Brittleness of Steel
During Its Cathodic Polarization in
Sulfuric Acid

Dilation in the capillary excludes the possibility of contact between the acid and the rubber stopper (see fig.), which would increase hydrogen absorption. Current was supplied by a battery. Extent of hydrogen absorption was determined by measuring changes in tensile strength of the wire (by an RM-50 apparatus), torsion endurance (by a K-2 apparatus), and, in some cases, bending strength (by an NG-1--2 device). The latter two tests were found to be most sensitive. The measurements show that: (1) Absorption of hydrogen in solutions of pure sulfuric acid (technical grade) is very low and only slightly increases upon increase of acid concentration and rise in temperature. (2) Addition of even small quantities of SeO_2 or As_2O_3 causes a sharp increase in hydrogen absorption (and consequently, decrease in wire strength)--see Fig. 4 (the respective curve for As_2O_3 is similar).

Card 3/8

Concerning Hydrogen Brittleness of Steel During Its Cathodic Polarization in Sulfuric Acid

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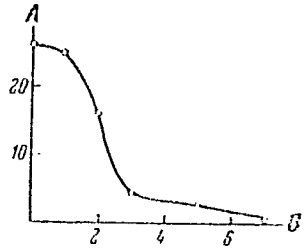

Fig. 4. Effect of time of polarization in 0.1N solution of H_2SO_4 containing 2.5 mg/l SeO_2 upon the tensile strength of steel. Cathodic current density D_c = 50 ma/cm^2; temperature t = 17°. (A) Tensile strength (in kg); (B) time (in min).

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